## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application.

## **Listing of Claims:**

1. (Currently Amended) A compound having the structure:

wherein:

each of X<sup>1</sup> and X<sup>2</sup> is are each independently H, Me, F, Cl, Br, or I, SO<sub>3</sub>H, CO<sub>2</sub>H, CONH<sub>2</sub>, CN, or NO<sub>2</sub>;

X<sup>3</sup> is NHCH<sub>2</sub>R, or NHSO<sub>2</sub>R, wherein R is CH<sub>2</sub>OOOH, CH<sub>2</sub>CH<sub>2</sub>NG<sup>4</sup>G<sup>3</sup>, substituted 2-hydroxyphenyl, or a five or six-membered heterocyclic ring, G<sup>4</sup>-and G<sup>2</sup>-are H, Me, Et, CH<sub>2</sub>CH<sub>2</sub>OH, or together are -(CH<sub>2</sub>)<sub>4</sub>-, -(CH<sub>2</sub>)<sub>5</sub>-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, or -CH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>-;

X<sup>4</sup> is H, Me, F, Cl, Br, I, SO<sub>2</sub>H, CO<sub>2</sub>H, CN, OMe, NHCH<sub>2</sub>R, or NHSO<sub>2</sub>R, wherein R is as defined above.

 $Y^1$  and  $Y^2$  are each independently-H, or taken together are -O-, -S-, -Se-, -CMe<sub>2</sub>-, -NH-, -NMe-, or -NPh-;

A is N, CH, C-CN, C-CF<sub>3</sub>, C-CH<sub>2</sub>CH<sub>2</sub>OOOH, C-CH=CHCOOH,

<del>O</del>F

$$Z^{5}$$
 $Z^{1}$ 
 $Z^{2}$ 
 $Z^{3}$ 

wherein:

 $Z^1$  is H, CO<sub>2</sub>H, or SO<sub>3</sub>H;

each of  $Z^2$  and  $Z^5$  is are each independently H, F, or Cl;

each of Z<sup>3</sup> and Z<sup>4</sup> is are independently H, F, Cl, CO<sub>2</sub>H, NO<sub>2</sub>, NH<sub>2</sub>, NCS,

NHCOCH<sub>2</sub>I, SCH<sub>2</sub>OOOH, SCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, (N-succinimidyl)oxycarbonyl, (N-succinimidyl)oxycarbonylmethylthio, N-maleimidyl, <u>or</u> 3,5-dichloro-2,4,6-triazinylamino,

CONHQ, or SO<sub>2</sub>NHQ, wherein Q is H, C<sub>1</sub>-C<sub>20</sub>-alkyl, (CH<sub>2</sub>)<sub>m</sub>OOOH, (CH<sub>2</sub>)<sub>n</sub>,NH<sub>2</sub>, or (CH<sub>2</sub>CH<sub>2</sub>O)<sub>k</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, wherein in is 1 to about 11, n is 2 to about 12, and k is 1 to about 3

or tautomers and physiologically acceptable salts thereof.

- 2. (Cancelled)
- 3. (Currently Amended) The compound of claim [[3]]  $\underline{1}$ , wherein  $Z^1$  is  $CO_2H$ , and  $Z^2$ ,  $Z^3$ ,  $Z^4$ , and  $Z^5$  are each independently H.
  - 4. (Currently Amended) A compound having the structure:

$$X^1$$
 $X^2$ 
 $X^3$ 
 $X^4$ 
 $X^4$ 

wherein:

each of X<sup>1</sup> and X<sup>2</sup> is are each independently H, Me, F, Cl, Br, or I, SO<sub>3</sub>H, CO<sub>2</sub>H, CONH<sub>2</sub>, CONMe<sub>2</sub>, CN, or NO<sub>2</sub>; and

X<sup>3</sup> and X<sup>4</sup> are NHCH<sub>2</sub>R or NHSO<sub>2</sub>R, wherein R is CH<sub>2</sub>COOH, CH<sub>2</sub>CH<sub>2</sub>NG<sup>1</sup>G<sup>2</sup>, substituted 2-hydroxyphenyl, or a five or six-membered heterocyclic ring, G<sup>1</sup>-and G<sup>2</sup>-are H, Me, Et, CH<sub>2</sub>CH<sub>2</sub>OH, or together are -(CH<sub>2</sub>)<sub>4</sub>-, -(CH<sub>2</sub>)<sub>6</sub>-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, or -CH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>-.

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- 5. (Currently Amended) The compound of claim 4, wherein <u>each</u> X<sup>3</sup> and X<sup>4</sup> <u>is are each</u> independently NHSO<sub>2</sub>R, wherein R is CH<sub>2</sub>OOOH, CH<sub>2</sub>CH<sub>2</sub>NG<sup>1</sup>G<sup>2</sup>, substituted 2-hydroxyphenyl, or a five or six-membered heterocyclic ring, and wherein G<sup>1</sup> and G<sup>2</sup> are H, Me, Et, CH<sub>2</sub>CH<sub>2</sub>OH, or G<sup>1</sup> and G<sup>2</sup> taken together are -(CH<sub>2</sub>)<sub>4</sub>-, -(CH<sub>2</sub>)<sub>5</sub>-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, or -CH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>-.
  - 6. (Currently Amended) The compound of claim 4 having the structure

wherein:

each  $X^1$  and  $X^2$  is are each independently F, Me or Cl.

- 7. 10 (Cancelled)
- 11. (Currently Amended) An adduct, comprising a product of bonding of

  The the compound of claim 1[[,]] and wherein the compound reacts with to a target sequence
  in the presence of a chelating substance including in the presence of Zn<sup>2+</sup> ion, wherein the
  adduct is capable of generating to generate a detectable signal.
- 12. (Currently Amended) The <u>adduct compound</u> of claim [[1]] <u>11</u>, wherein <u>the detectable signal is</u> <u>compound reacts with a target sequence in the presence of Zn<sup>2+</sup>-ion to generate</u> a fluorescent signal.
- 13. (Currently Amended) The <u>adduct</u> <del>compound</del> of claim 12, wherein the target sequence is a histidine-rich peptide sequence.

- 14. (Currently Amended) The <u>adduct</u> <del>compound</del> of claim 13, wherein the histidine-rich peptide sequence comprises <del>about</del> 6 histidine residues.
  - 15. (Cancelled)
  - 16. (Currently Amended) A kit, comprising:
  - (a) a compound of claim 1 [[,]];
  - (b) a chelating substance including Zn<sup>2+</sup> ion; and
  - (c) a target sequence,

wherein in the presence of  $Zn^{2+}$  ion, the compound <u>of claim 1</u> is capable of binding to <u>the a target sequence</u> in a recombinant fusion protein <u>to generate a detectable</u> <u>signal; and a binding partner comprising a target sequence</u>, the target sequence comprising a histidine-rich peptide sequence.

- 17. (Currently Amended) The kit of claim 16, wherein the target sequence comprises **about** 6 histidine residues.
  - 18. (Cancelled)
- 19. (Currently Amended) The kit of claim 49 16, wherein the detectable signal is a fluorescent signal.
- 20. (Currently Amended) A complex, comprising a product of reaction between:
  - **a** (a) a compound of claim 1;
  - b. (b) a targeting sequence comprising a histidine-rich peptide sequence; and
  - **€** (c) Zn<sup>2+</sup> ion.
- 21. (Currently Amended) The complex of claim 20, wherein the histidine-rich peptide sequence comprises about 6 histidine residues.

22. (Currently Amended) A method of labeling a histidine-rich protein, comprising <u>contacting providing</u> a fusion protein <u>comprising including</u> a native protein and a targeting sequence, <u>and-contacting the fusion protein</u> in the presence of an effective amount of  $Zn^{2+}$  ion, with a compound having the structure:

HO 
$$X^1$$
  $Y^2$   $X^2$   $X^3$   $X^4$ 

wherein:

<u>each of</u> X<sup>1</sup> and X<sup>2</sup> <u>is are each</u> independently <del>H, Me,</del> F, Cl, Br, <u>or</u> I, <del>SO<sub>3</sub>H,</del> <del>CO<sub>2</sub>H, CONH<sub>2</sub>, CONMe<sub>2</sub>, CN, or NO<sub>2</sub>;</del>

X<sup>3</sup> is NHCH<sub>2</sub>R, or NHSO<sub>2</sub>R, wherein R is CH<sub>2</sub>OOOH, CH<sub>2</sub>CH<sub>2</sub>NG<sup>1</sup>G<sup>2</sup>, substituted 2-hydroxyphenyl, or a five or six-membered heterocyclic ring, G<sup>1</sup>-and G<sup>2</sup> are H, Me, Et, CH<sub>2</sub>CH<sub>2</sub>OH, or together are -(CH<sub>2</sub>)<sub>4</sub>-, -(CH<sub>2</sub>)<sub>6</sub>-, -CH<sub>2</sub>CH<sub>2</sub>OCH<sub>2</sub>CH<sub>2</sub>-, or -CH<sub>2</sub>CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>-;

 $X^4$  is H, Me, F, Cl, Br, I,  $SO_2H$ ,  $CO_2H$ , CN, OMe,  $NHCH_2R$ , or  $NHSO_2R$ , wherein R is as defined above,

 $Y^1$  and  $Y^2$  are each independently-H, or taken together are -O-, -S-, -Se-, -CMe<sub>2</sub>-, -NH-, -NMe-, or -NPh-;

A is N, CH, C-CN, C-CF<sub>2</sub>, C-CH<sub>2</sub>CH<sub>2</sub>OOOH, C-CH=CHCOOH,

$$Z^5$$
 $Z^1$ 
 $Z^4$ 
 $Z^3$ 

wherein:

Z<sup>1</sup> is H, CO<sub>2</sub>H, or SO<sub>3</sub>H;

each of  $Z^2$  and  $Z^5$  is are each independently H, F, or Cl;

each of Z³ and Z⁴ is are independently H, F, Cl, CO<sub>2</sub>H, NO<sub>2</sub>, NH<sub>2</sub>, NCS, NHCOCH<sub>2</sub>I, SCH<sub>2</sub>OOOH, SCH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, (N-succinimidyl)oxycarbonyl, (N-succinimidyl)oxycarbonylmethylthio, N-maleimidyl, or 3,5-dichloro-2,4,6-triazinylamino, CONHQ, or SO<sub>2</sub>NHQ, wherein Q-is H, C<sub>1</sub>-C<sub>20</sub>-alkyl, (CH<sub>2</sub>)<sub>m</sub>OOOH, (CH<sub>2</sub>)<sub>n</sub>,NH<sub>2</sub>, or (CH<sub>2</sub>CH<sub>2</sub>O)<sub>k</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>, wherein in is 1 to about 11, n-is 2 to about 12, and k is 1 to about 3

or tautomers and physiologically acceptable salts thereof, thereby labeling  $\frac{1}{2}$  the histidine-rich protein.

- 23. (Cancelled)
- 24. (Currently Amended) The method of claim 23 22, wherein the histidine-rich peptide sequence protein comprises about 6 histidine residues.
- 25. (Currently Amended) The method of claim 22, wherein the compound <u>is</u> capable of generates generating a detectable signal.
- 26. (Original) The method of claim 25, wherein the signal is a fluorescent signal.
  - 27. (Original) The compound of claim 5 having the structure: